

**LISTING OF THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1-61. (Cancelled).

62. (Currently amended) A power distribution system comprising:

a circuit having a zone of protection, said circuit comprising a first circuit breaker and a second circuit breaker, said first circuit breaker being downstream of said second circuit breaker, said first circuit breaker having a first current running therethrough and first pickup settings and said second circuit breaker having a second current running therethrough and second pickup settings; and

a control processing unit being communicatively coupled to said circuit first and second circuit breakers, wherein said control processing unit monitors a topology of said zone of protection, wherein said control processing unit adjusts a zone protective function for said zone of protection based at least in part upon said topology, and wherein said control processing unit performs said zone protective function to detect a fault in said zone of protection, wherein said control processing unit operatively controls said first and second circuit breakers including instantaneous overcurrent protection, and wherein said control processing unit causes said second circuit breaker to enter a pickup mode as a function of said first current and said first pickup settings when said fault is detected downstream of said first circuit breaker.

63. (Original) The system of claim 62, further comprising a network communicatively coupled to said control processing unit and said circuit.

64. (Cancelled).

65. (Currently amended) The system of claim 62, ~~wherein said circuit comprises a circuit breaker,~~ wherein said control processing unit receives parameter signals representative of electrical parameters of said circuit, and wherein said control

processing unit opens said first and/or second circuit breaker in response to said parameter signals if said fault is detected.

66. (Previously presented) The system of claim 65, wherein said control processing unit applies an algorithm to said electrical parameters to perform said zone protective function on said zone of protection.

67. (Original) The system of claim 66, wherein said control processing unit uses a coefficient of said algorithm in applying said zone protective function, and wherein said control processing unit adjusts said coefficient based at least in part upon changes to said topology.

68. (Currently amended) The system of claim 65, wherein said electrical parameters further comprise a state of said first and second circuit breakers, said state being either opened or closed, and wherein said topology is determined by said control processing unit based at least in part upon said state ~~of said circuit breaker~~.

69. (Currently amended) The system of claim 65, further comprising a first circuit breaker actuator in communication with said control processing unit, wherein said circuit breaker actuator receives an actuation signal from said control processing unit, said actuation signal causing said first circuit breaker actuator to open said first circuit breaker.

70. (Currently amended) The system of claim 69, wherein said control processing unit determines a dynamic delay time for opening said first circuit breaker, and wherein said actuation signal causes said first circuit breaker actuator to open said first circuit breaker after said dynamic delay time has elapsed.

71. (Currently amended) The system of claim 65, further comprising a module and a sensor, said module being in communication with said first circuit breaker, said sensor and said control processing unit, wherein said sensor senses said electrical

parameters and communicates said parameter signals to said module, and wherein said module communicates said parameter signals to said control processing unit.

72. (Original) The system of claim 71, wherein said control processing unit monitors said sensor for an error in sensing said electrical parameters, and wherein said control processing unit adjusts said zone protective function based at least in part upon said error.

73. (Original) The system of claim 71, wherein said control processing unit monitors said module for an error in communicating said parameter signals, and wherein said control processing unit adjusts said zone protective function based at least in part upon said error.

74. (Cancelled).

75. (New) A power distribution system comprising:  
a circuit having a plurality of circuit breakers,  
a plurality of data modules, each data module of said plurality of data modules being in communication with a different circuit breaker of said plurality of circuit breakers;  
a central control processing unit;  
a data network communicating between said central control processing unit and each of said plurality of data modules,  
said plurality of modules providing digital signals to said central control processing unit over said data network based, at least in part on a synchronization instruction from said central control processing unit received over said data network, so that said digital signals are representative of a current and a breaker state at each of said plurality of circuit breakers within a predetermined time-window such that said central control processing performs at least an instantaneous overcurrent protection function for said plurality of circuit breakers, and  
said central control processing unit determining a topology of said circuit upon

receipt of said breaker state, defining a zone of protection for at least a portion of said plurality of circuit breakers based upon said topology, and applying a different zone protection algorithm to said zone of protection based on said topology and said current.

76. (New) The system of claim 75, wherein said predetermined time-window is less than about ten microseconds.

77. (New) The system of claim 75, wherein said predetermined time-window is less than about five microseconds.

78. (New) The system of claim 75, wherein said plurality of circuit breakers are arranged in a configuration selected from the group consisting of series, parallel, and combinations thereof.

79. (New) The system of claim 75, wherein said central control processing unit determines a dynamic delay time for opening at least one of said plurality of breakers if a fault is detected in said circuit, said dynamic delay time being based at least in part on a location of said fault.

80. (New) The system of claim 79, wherein said central control processing unit delays opening said at least one circuit breaker until after said dynamic delay time has elapsed, said dynamic delay time being selectively generated by said central control processing unit in response to said digital signals if said fault is detected in said circuit, wherein said central control processing unit determines a nearest breaker upstream to said fault and wherein said dynamic delay time is based at least in part on a clearing time of said nearest breaker.